### **EXPRESS TERMS**

## TITLE 24, CALIFORNIA BUILDING STANDARDS CODE PART 2, CHAPTER 4 SECTION 420A.4

#### **GENERAL CONSTRUCTION**

#### 420A.4 General Construction.

**420A.4.0 Services/systems and utilities.** Services/systems and utilities that are necessary to the operation of an acute care hospital, skilled nursing facility, intermediate care facility, or correctional treatment center shall not originate in or pass through or under a building that does not meet the structural requirements of the 1973 edition or later edition of the California Building Standards Code meet the structural requirements of this section. Examples of services/systems and utilities include normal power; emergency power; nurse call; fire alarm; communication and data systems; space heating systems; process load systems; cooling systems; domestic hot and cold water systems; fire-suppression systems; building drain and sewer systems; and medical gas systems that support basic and supplemental services.

Services from an acute care hospital, skilled nursing facility or a correctional treatment center may serve a building that does not comply with the structural requirements of the 1973 edition or later edition of the California Building Standards Code with prior approval of the Office.

**Exception:** Remodel and alteration projects that use available existing services/systems and utilities are exempted from these requirements of this section. These requirements are intended for projects where additional or new services/systems and utilities are required. The authority having jurisdiction may exempt minor addition, minor alteration, and minor remodel projects and projects to upgrade existing services/systems and utilities from these requirements of this section.

## 420A.4.0.1 Services/systems and utilities for hospital buildings.

420A.4.0.1.1. Additions, alterations, and remodels of conforming (SPC 3, 4 or 5) hospital buildings. Services/systems and utilities for new buildings and additions, and alterations or remodels to existing conforming buildings shall originate in hospital buildings that have OSHPD-approved performance categories of SPC-3 or higher and NPC-4 or higher. The services/systems and utilities shall not pass through or under buildings that do not have OSHPD-approved performance categories of SPC-2 or higher and NPC-4 or higher.

**Exceptions:** 1. Remodel and alteration projects that use available existing services/systems and utilities are exempted from these requirements.

2. Services/systems and utilities may pass through or under buildings that have OSHPD-approved nonstructural performance categories of NPC-2 or NPC-3, provide that the services/systems and utilities feeding the new building, addition, alteration or remodel conform with Section 1632A and are deemed by OSHPD to

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<u>be free of adverse seismic interactions caused by potential failure of overhead or adjacent components.</u>

<u>420A.4.0.1.2. Additions, alterations, and remodels of SPC-2 hospital buildings.</u>

<u>Services/systems and utilities for additions, alterations or remodels of SPC-2 hospital buildings may originate in and pass through or under SPC-2 or better buildings that have an OSHPD-approved nonstructural performance category of NPC-3 or higher.</u>

Exception: Services/systems and utilities may pass through or under buildings that have OSHPD-approved nonstructural performance categories of NPC-2 provide that the services/systems and utilities feeding the addition, alteration or remodel conform with Section 1644A.13 and 1645A.7 and are deemed by OSHPD to be free of adverse seismic interactions caused by potential failure of overhead or adjacent components.

420A.4.0.1.3. Alterations, and remodels of SPC-1 hospital buildings.

Services/systems and utilities for alterations or remodels of SPC-1 hospital buildings may originate in and pass through or under SPC-1 or better buildings that have an OSHPD-approved nonstructural performance category of NPC-2 or higher.

420A.4.0.1.4. Buildings without SPC/NPC ratings. When services/systems and utilities for new buildings, additions, alterations or remodels pass through or under hospital buildings which would not otherwise require evaluation for an SPC rating, such buildings shall be evaluated in accordance with the requirements of Section 1.3, Chapter 6, Part 1, California Building Standards Administrative Code to determine the appropriate ratings, or shall be shown to meet the structural requirements of these regulations for new hospital buildings. The services/systems and utilities feeding the new building, addition, alteration or remodel shall conform with Section 1632A and shall be deemed by OSHPD to be free of adverse seismic interactions caused by potential failure of overhead or adjacent components.

## 420A.4.0.1.5. Buildings removed from acute-care hospital service.

Services/systems and utilities for conforming acute care hospital buildings may pass through or under a building that has been removed from acute care hospital service until January 1, 2030 if the building removed from service remains under the jurisdiction of OSHPD, and meets the performance requirements of Section 420A.4.0.1.1. Services/systems and utilities for nonconforming acute care hospital buildings may pass through or under a building that has been removed from acute care hospital service only if the building removed from service remains under the jurisdiction of OSHPD, and meets the performance requirements of Section 420A.4.0.1.2.

Exception: Services/systems and utilities for acute care hospital buildings may pass through or under buildings that have been removed from acute care service, and which do not meet the performance requirements of Section 420A.4.0.1. 1 or Section 420A.4.0.1.2, provided all of the following are met:

- 1. The hospital has obtained an approved extension to the 2008 deadlines in accordance with Section 1.5.2, Article 1, Chapter 6, California Building Standards Administrative Code.
- 2. The extension request specifically includes a request to allow services/systems and utilities to pass through or under the building

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- removed from acute care service. The services/systems and utilities may pass through or under the building for the duration of the extension.
- 3. The building removed from acute care service remains under the jurisdiction of OSHPD.

After January 1, 2030, services/systems and utilities for acute care hospital buildings shall not originate in or pass through or under a non-hospital building unless it has OSHPD-approved performance categories of SPC-3 or better and NPC-4 or higher, and the non-hospital building remains under the jurisdiction of OSHPD.

- 420A.4.0.2 Services/systems and utilities for skilled nursing facilities, intermediate care facilities, and correctional treatment centers.
- 420A.4.0.2.1 New buildings and additions. Services/systems and utilities for new buildings and additions shall not originate in or pass through or under structures that do not comply with the structural requirements of the 1973 edition or later edition of the California Building Standards Code. The structures must be under the jurisdiction of OSHPD.

Exception: As an alternate to this section, skilled nursing and intermediate care facilities, and correctional treatment centers may meet the requirements in Section 420A.4.0.1 for hospital buildings.

420A.4.0.2.1 Alterations and remodels. Services/systems and utilities for alterations or remodels of existing buildings may pass through structures that do not comply with the structural requirements of the 1973 edition or later edition of the California Building Standards Code provided that the structure is under the jurisdiction of OSHPD, and the new services/systems and utilities passing through the buildings are anchored and braced for seismic forces in accordance with these regulations for new buildings and are deemed by OSHPD free of adverse seismic interactions caused by potential failure of overhead or adjacent components.

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## ARTICLE 1

## **DEFINITIONS AND REQUIREMENTS**

**SECTION 1.0 SCOPE** - The regulations in this article shall apply to the administrative procedures necessary to implement the seismic retrofit requirements of the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983.

**SECTION 1.1 APPLICATION** - The regulations shall apply to all general acute care hospital facilities as defined in Section 1.2 of these regulations.

**SECTION 1.2 DEFINITIONS** - Unless otherwise stated, the words and phrases defined in this section shall have the meaning stated therein throughout Chapter 6, Part 1, Title 24.

**Alternate Analysis** means a complete seismic analysis using methodology approved in advance by the Office and meeting the criteria of Article 2, Section 2.7 of these regulations.

**Bulk Medical Gas System** means an assembly of fixed equipment such as storage containers, pressure regulators, pressure relief devices, vaporizers, manifolds, and interconnecting piping that has a capacity of more than 20,000 cubic feet (NTP) of cryogenic medical gas.

**Communications System** means the assembly of equipment such as telephone switchgear, computers, batteries, radios, microwave communications systems, towers, and antennas that provide essential internal and external communication links.

**Conforming Building** means a building originally constructed in compliance with the requirements of the 1973 or subsequent edition of the California Building Code.

**Critical Care Area** means those special care units, intensive care units, coronary care units, angiography laboratories, cardiac catheterization laboratories, delivery rooms, emergency rooms, operating rooms, post-operative recovery rooms and similar areas in which patients are intended to be subjected to invasive procedures and connected to line-operated, electromedical devices.

**Emergency Power Supply (EPS)** means the source of electric power including all related electrical and mechanical components of the proper size or capacity, or both, required for the generation of the required electrical power at the EPS output terminals. For rotary energy converters, components of an EPS include the prime mover, cooling system, generator, excitation system, starting system, control system, fuel system, and lube system (if required).

**Essential Electrical Systems** means a system as defined in the California Electrical Code, Article 517 "Health Care Facilities", Chapter 5, Part 3 of Title 24.

**Fire Alarm System** means a system or portion of a combination system consisting of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal initiating devices and to initiate appropriate response to those signals.

Functional Contiguous Grouping means a group of hospital buildings, each of which contains the primary source of one or more basic services, that are operationally interconnected in a manner acceptable to the Department of Health Services.

**General Acute Care Hospital** as used in Chapter 6, Part 1 means a hospital building as defined in Section 129725 of the Health and Safety Code and that is also licensed pursuant to subdivision (a) of Section 1250 of the Health and Safety Code, but does not include these buildings if the beds licensed pursuant to subdivision (a) of Section 1250 of the Health and Safety Code, as of January 1, 1995, comprise 10 percent or less of the total licensed beds of the total physical plant, and does not include facilities owned or operated, or both, by the Department of Corrections. It also precludes hospital buildings that may be licensed under the above mentioned code sections, but provide skilled nursing or acute psychiatric services only.

**Hospital Equipment** means equipment permanently attached to the building utility services such as surgical, morgue, and recovery room fixtures, radiology equipment, medical gas containers, food service fixtures, essential laboratory equipment, TV supports, etc.

**Hybrid Structure** means a structure consisting of an original and one or more additions, constructed at different times, and with lateral force resisting systems of different types, or constructed with differing materials or a different design approach. The original building and additions are interconnected and not seismically isolated.

**Nonconforming Building** means any building that is not a conforming building.

**Nonstructural Performance Category (NPC)** means a measure of the probable seismic performance of building contents and nonstructural systems critical to providing basic services to inpatients and the public following an earthquake, as defined in Article 11, Table 11.1 of these regulations.

Primary Source means that building or portion of a building identified by the hospital as housing the main or principal source of a basic hospital service, serving the greatest number of patients, providing the greatest number of patient beds or having the largest/greatest floor space of the specified basic service. The hospital may submit data to substantiate the primary source through alternative criteria if different than above.

**Principal Horizontal Directions** means the two predominant orthogonal translational modes of vibration with the lowest frequency.

**Slender Seismic Resisting System** means any vertical system for resisting lateral forces, such as walls, braced frames, or moment frames, with a height to width ratio greater than four for the minimum horizontal dimension at any height.

**Structural Performance Category (SPC)** means a measure of the probable seismic performance of building structural systems and risk to life posed by a building subject to an earthquake, as defined in Article 2, Table 2.5.3 of these regulations.

**SECTION 1.3 SEISMIC EVALUATION** - All general acute care hospital owners shall perform a seismic evaluation on each hospital building in accordance with the Seismic Evaluation Procedures as specified in Articles 2 through 11 of these regulations. By January 1, 2001, hospital owners shall submit the results of the seismic evaluation to the Office for review and approval. By completing this seismic evaluation, a hospital facility can determine its respective seismic performance categories for both the Structural Performance Category (SPC) and the Nonstructural Performance Category (NPC) in accordance with Articles 2 and 11 of these regulations.

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**Section 1.3.1 Seismic Evaluation Submittal** - Hospital owners shall submit the seismic evaluation report to the Office by January 1, 2001. There are no provisions for submittal of the evaluation report after this date. The hospital owners shall submit the evaluation report in accordance with Section 7-113, "Application for Plan er Report or Seismic Compliance Extension Review" and Section 7-133, "Fees" of Article 3, Chapter 7, Part 1, Title 24.

- Exceptions: 1. Any hospital facility owner whose building is exempted from the structural evaluation per Sections 2.0.1.2 shall not be required to submit a structural evaluation report as specified in Section 1.3.3. In lieu of the structural evaluation report, hospital owners shall submit the matrix of construction information for the specified building(s) as noted in Section 1.3.4.6 to the Office by January 1, 2001;
  - 2. Any hospital facility owner whose building is exempted from the nonstructural seismic evaluation per Section 11.0.1.2 shall not be required to submit a nonstructural evaluation report as specified in Section 1.3.4. In lieu of the nonstructural evaluation report, hospital owners shall submit the matrix of construction information for the specified building(s) as noted in Section 1.3.4.6 to the Office by January 1, 2001.

**Section 1.3.2 Seismic Evaluation Format** - The evaluation shall consist of the Structural Evaluation and the Nonstructural Evaluation Reports. The reports shall be prepared in conformance with Part 1, Chapter 7, Title 24 and these regulations and prepared as follows:

- 1. Reports shall be submitted in an 8 1/2" x 11" format;
- 2. All site, architectural, and engineering plans shall be formatted on 11" x 17" sheets (folded to 8 1/2" x 11");
- 3. Larger sheets, if required to clearly describe the requested information, shall be appended to the reports; and
- 4. Other supporting documents in addition to those meeting the minimum requirements of sections 1.3.3 and 1.3.4 may be appended to the reports.

**Section 1.3.3 Structural Evaluation Report** - The structural evaluation report shall include the following elements:

- 1. A description of the building, including photographs of the building, and sketches of the lateral force resisting system;
- 2. The "General Sets of Evaluation Statements" from the Appendix;
- 3. A synopsis of the investigation and supporting calculations that were made;
- 4. A list of the deficiencies requiring remediation to change statement responses from false to true; and
- 5. The SPC for the building, with comments on the relative importance of the deficiencies.

**Section 1.3.4 Nonstructural Evaluation Report** - The nonstructural evaluation report shall include the following elements:

 A written description of the evaluation methods and procedures conducted in conformance with Article 11 of these regulations for the determination of the facilities existing compliance. The description shall include the systems and components required for the planned level of nonstructural performance as identified in Table 11.1;
 Exceptions: 1. Additional evaluations as per Section 11.01.3 will be required for any hospital owner electing to obtain a higher NPC at a future date consistent with an approved compliance plan:

2. A complete nonstructural evaluation up to NPC 5 is required prior to the hospital owner selling or leasing the hospital to another party.

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2. Provide single line diagrammatic plans (site plan and floor plans) of the following:

- 2.1. Location of the following areas/spaces:
  - (a) Central supply areas;
  - (b) Clinical laboratory service spaces;
  - (c) Critical care areas;
  - (d) Pharmaceutical service spaces;
  - (e) Radiological service spaces, and
  - (f) Sterile supply areas.
- 2.2 Diagrammatic or narrative descriptions of the following major building systems where deficiencies are identified that are within the scope of the evaluation, including primary source location or point(s) of entry into the building and major distribution routes of each utility or system.
  - (a) Mechanical Systems including:
    - i. Air supply equipment, piping, controls and ducting;
    - ii. Air exhaust equipment and ducting;
    - iii. Steam and hot water piping systems, including boilers, piping systems, valving and components, and
    - iv. Elevators selected to provide service to patient, surgical, obstetrical and ground floors.
  - (b) Plumbing Systems including:
    - Domestic water supply system, including heating equipment, valving, storage facilities and piping;
    - ii. Medical gas supply system, including storage facilities, manifolding and piping;
    - iii. Fire protection system, including sprinkler systems, wet and dry standpipes, piping systems, and other fire suppression systems; and
    - iv. Sanitary drainage system, including storage facilities and piping.
  - (c) Electrical Systems, including:
    - i. Essential Electrical system, including emergency fuel storage;
    - ii. Internal communication systems;
    - iii. External communication systems;
    - iv. Fire alarm systems, and
    - v. Elevators selected to provide service to patient, surgical, obstetrical and ground floors.
- 3. A synopsis of the evaluation and all the calculations used in the course of the evaluation for the planned level of nonstructural performance;
- 4. A list of the deficiencies identified in the course of the evaluation <u>for the planned level of nonstructural performance</u>;
- 5. Provide an 11x17 scaled Site Plan which identifies the boundaries of the facility property, locates all buildings, roadways, parking and other significant site features and improvements. Identify boundaries between buildings which were constructed at different times. For all buildings, note the names of the buildings and date of each related building permit. Provide the SPC and NPC for all buildings.
- 6. Provide the following matrix of construction information for each building of the facility under the acute care license, include the Structural Performance Category (SPC) and Nonstructural Performance Category (NPC) for all hospital buildings (see Tables 2.5.3 and 11.1). Identify each building addition separately. For buildings constructed, reconstructed or remodeled under a building permit issued by the Office, provide the OSHPD application number and the date of the initial submittal.

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Building Name/ Designati on	OSHPD (or Local Building) Permit Date/Numbe <u>r</u>	Governin g Building Code	Constructio n Completion Date	Building Type(Per Section 2.2.3)	SPC	NPC

**SECTION 1.4 COMPLIANCE PLANS** - A compliance plan shall be prepared and submitted for each building subject to these regulations. All general acute care hospital owners shall formulate a compliance plan which shall indicate the facilities intent to do any of the following:

- 1. Building retrofit for compliance with these regulations for continued acute care operation beyond 2030;
- 2. Partial retrofit for initial compliance, with closure or replacement expected by 2002, 2008, *2013*, or 2030;
- 3. Removal from acute care service with conversion to non acute care health facility use; or
- 4. No action, building to be closed, demolished, or replaced.

This plan must clearly indicate the actions to be taken by the facility and must be in accordance with the timeframes set forth in Article 2 (Structural Performance Category – "SPC") and Article 11 (Nonstructural Performance Category – "NPC") of the Seismic Evaluation Procedure regulations.

**Section 1.4.1 Preparation of the Compliance Plan -** The Compliance Plan shall be prepared and submitted in conformance with these regulations in the following format:

- 1. Compliance Plans shall be submitted in an 8 1/2" x 11" format;
- 2. All site, architectural, and engineering plans shall be formatted on 11" x 17" sheets (folded to 8 1/2" x 11");
- 3. Larger sheets, if required to clearly describe the requested information, shall be appended to the compliance plan; and
- 4. Other supporting documents in addition to those meeting the minimum requirements of Section 1.4.4 may be appended to the compliance plan.

**Section 1.4.2 Compliance Plan Submittal** - Hospital owners shall submit the compliance plan to the Office by January 1, 2001 unless the owner requests an extension pursuant to Section 1.4.3. The hospital owners shall submit the compliance plan in accordance with Section 7-113, "Application for Plan or Report Review" and Section 7-133, "Fees" of Article 3, Chapter 7, Part 1, Title 24.

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**Section 1.4.3 Compliance Plan Submittal Extension -** Hospital owners may request an extension from the Office for submission of the compliance plan. Any hospital owner requesting an extension for submittal of the compliance plan shall make such request in writing to the Office up to 180 days prior to, but no later than January 1, 2001. The compliance plan must be submitted no later than January 1, 2002. All hospital owners requesting an extension for submittal of the compliance plan shall certify to OSHPD that all hospital buildings continuing acute care operation beyond January 1, 2002 meet the standards of NPC 2 by January 1, 2002.

**Section 1.4.4 Compliance Plan Requirements -** Each compliance plan shall contain the following elements:

- 1. An Existing Site/Campus Description;
- 2. A Compliance Plan Description;
- 3. A Compliance Site Plan;
- 4. A Compliance Plan Schedule; and
- 5. An Existing and Planned Buildings Matrix.

**Section 1.4.4.1 Existing Site/Campus Description** - If the compliance plan is submitted separately from the seismic evaluation, it will be necessary to resubmit the information as specified in Section 1.3.4.5, of the Nonstructural Evaluation Report.

**Section 1.4.4.2 Compliance Plan Description -** Provide a comprehensive narrative description of the Compliance Plan, including the projected schedule for compliance.

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**Section 1.4.4.3 Compliance Site Plan -** Provide Compliance Site Plans, indicating the configuration of the facility at the 2008 and 2030 milestones. The plans shall indicate conforming and nonconforming buildings and identify the final configuration of the facility at each milestone, after completion of compliance measures.

**Section 1.4.4.4 Compliance Plan Schedule** - Provide a bar graph schedule which describes the schedule for compliance with the SPC and NPC seismic performance categories, indicating the schedule of the following major phases of the plan:

- 1. Obtain a geotechnical report (if necessary);
- 2. Architecture and engineering design/construction document preparation;
- 3. Local approvals:
- 4. Office review, approval and permitting;
- 5. Approval of Department of Health Services Licensing and Certification, and any other required licensing;
- Permanent <u>Rrelocation</u> of acute care services to other <u>buildings or facilities</u> (identify services affected);
- 7. Temporary/interim relocation of acute care services to other buildings including the duration of the approved program flexibility plan pursuant to Health and Safety Code Section 1276.05;
- 87. Construction period; and
- 98.Beneficial occupancy.

**Section 1.4.4.5 Existing and Planned Buildings Matrix** - Provide the following matrix of construction information for each building of the facility under the acute care license, include the Structural Performance Category (SPC) and Nonstructural Performance Category (NPC) for all hospital buildings (see Tables 2.5.3 and 11.1). Identify each building addition separately.

Building Name/ Designation	Building Type(Pe r Section 2.2.3)	SPC Existin g	SPC Planne d	NPC Existin g	NPC Planned

Section 1.4.5 Compliance Plan Update/Change Notification - Should a hospital owner change choose to modify an approved Compliance Plan, the hospital shall document any changes and submit for review and approval to the Office an amended Compliance Plan. Changes are defined as changes alterations to the planned level of seismic performance or compliance schedule. Submittal of an amended compliance plan shall require a hospital owner to comply with one or more of the following provisions, if applicable:

1. A hospital owner shall submit to the Department of Health Services' Seismic Safety Unit (DHS) an Office-approved compliance plan that includes interim relocation of general acute care services in accordance with a program flexibility plan pursuant to Health and Safety Code Section 1276.05. This submittal by the hospital owner to DHS shall occur within 30 days of the Office's approval.

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- 2. <u>A hospital owner shall comply with the requirements of Section 1.5.2, "Delay in Compliance" for any amended compliance plan.</u>
- 3. <u>A hospital owner amending a compliance plan to attain a higher NPC level will perform a nonstructural evaluation of the systems and components required for the planned level of nonstructural performance identified in Table 11.1, "Nonstructural Performance Categories".</u>

**Section 1.4.5.1 Change in Seismic Performance Category -** The SPC or NPC for a hospital building may be changed by the Office from the initial determination in Sections 1.3.3 or 1.3.4 provided the building has been modified to comply with the requirements of Chapter 16A, Part 2 of Title 24 for the specified SPC or NPC.

**Section 1.4.5.1.1** – The SPC or NPC for a hospital building may be changed by the Office from the initial determination made per Sections 2.0.1.2.3 or 11.0.1.2.1 upon the following:

- 1. A seismic evaluation report shall be submitted and approved which shall include either or both of the following:
  - a. A structural evaluation report in accordance with Section 1.3.3;
  - b. A nonstructural evaluation report in accordance with Section 1.3.4. Exception: To change an NPC 1 hospital building to an NPC 2 under this section, the nonstructural evaluation may be limited in scope to the systems and equipment specified in Section 11.2.1.
- 2. The building has been modified to comply with the requirements of Chapter 16B, Part 2 of Title 24 for the specified SPC or NPC.

Section 1.4.5.1.2 - A nonconforming hospital building from which all acute care services have been removed shall no longer be classified as a hospital building. A nonconforming hospital building used only for nonacute hospital purposes shall be classified as an outpatient clinical hospital service building and shall comply with the provisions of Health and Safety Code Section 129725, or shall be classified as a distinct part skilled nursing facility. The provisions of Health and Safety Code Section 129885(f) shall not apply to buildings used for nonacute hospital purposes.

<u>Section 1.4.5.1.3</u> – A hospital building that has been removed from acute care service may not be re-licensed as an acute care hospital building unless it has been modified to comply with the requirements of SPC 5 and NPC 4 or 5. Prior to use for acute care service, the SPC and/or NPC of the hospital building shall be changed in accordance with Section 1.4.5.1.1.

**SECTION 1.5 COMPLIANCE REQUIREMENTS -** All general acute care hospital owners shall comply with the seismic performance categories, both SPCs and NPCs, established in the seismic evaluation procedures, Articles 2 and 11 and set forth in Tables 2.5.3 and 11.1 respectively.

## **Section 1.5.1 – Compliance Deadlines**

- 1. After January 1, 2002, any general acute care hospital building which continues acute care operation must, at a minimum, meet the nonstructural requirements of NPC 2 as defined in Article 11, Table 11.1 or shall no longer provide acute care services.
  - 2. After January 1, 2008, any general acute care hospital building which continues acute care operation must, at a minimum, meet the structural requirements of SPC 2 as defined in Article 2, Table 2.5.3 or shall no longer provide acute care services.

Exception: A general acute care hospital may request a delay of SPC 2 requirements if the conditions of Section 1.5.2 are met.

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3. After January 1, 2008, any general acute care hospital which continues acute care operation must, at a minimum, meet the nonstructural requirements of NPC 3 as defined in Article 11, Table 11.1 or shall no longer provide acute care services.

Exception: A general acute care hospital may request an exemption from the anchorage and bracing requirements of NPC 3 if all the conditions of Section 1.5.2.2 are met.

4. January 1, 2030, any general acute care hospital building which continues acute care operation must, at a minimum, meet the structural requirements of SPC 3, 4, or 5 as in Article 2, Table 2.5.3 and the nonstructural requirements of NPC 5 as defined in Article 11, Table 11.1 or shall no longer provide acute care services.

#### **Section 1.5.2 Delay in Compliance**

- 1. The Office may grant the hospital owner an extension delay to Section 1.5.1.2 the

  January 1, 2008 seismic compliance deadline for both structural and nonstructural requirements if
  compliance will result in diminished health care capacity which cannot be provided by other
  general acute care hospitals within a reasonable proximity.
  - 1. Hospital owners requesting seeking an extension delay in accordance with Section 1.5.2 must submit an application form to the Office by January 1, 2007. The application form shall be accompanied by a statement explaining why the hospital is seeking the extension to the January 1, 2008 seismic compliance deadline. The statement shall include, at a minimum, the following information:
    - 1, The length/duration of the extension request;
    - 2. The hospital buildings requiring an extension; and
    - 3. The acute care services that will be completely or partially unavailable if the extension is denied.

written request to the Office including a statement with supporting documentation regarding the reason for noncompliance with Section 1.5.1.2 and a schedule indicating when compliance will be obtained. A delay request and compliance schedule may be submitted simultaneous with the hospital's evaluation and compliance plan pursuant to the requirements of this article. If a delay request is submitted after the seismic evaluation report, compliance plan and schedule, the request must include an amended compliance schedule and must be submitted to the Office no later than January 1, 2007.

- 2. The hospital owner shall request an time extension for seismic compliance shall be granted in one year increments, up to a maximum of five (5) years, beyond the mandated year of compliance. The facility hospital owner shall also submit an amended compliance plan and schedule in accordance with Section 1.4.5 indicating when compliance will be obtained requesting the extension shall provide evidence of efforts to implement an approved compliance plan which may include design/construction contracts and schedules which demonstrate efforts to implement the compliance measures within the requested period of extension.
- Any general acute care hospital located in Seismic Zone 3, as defined by Section 1627A.2 of the 1995 edition of the California Building Standards Code, may request an exemption from the anchorage and bracing requirements of NPC 3 if all of the following conditions are met:
  - 1. The hospital must meet the anchorage and bracing requirements for NPC 2 by January 1, 2002;
  - 2. The hospital shall submit a site-specific engineering geologic report, prepared in accordance with Section 1634B.1. The report shall include estimates of the effective peak ground acceleration (EPA) with a 10% probability of exceedance in 50 years;

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- 3. The California Division of Mines and Geology (CDMG) reviews and approves the findings of the site-specific engineering geologic report;
- 4. The site-specific engineering geologic report demonstrates that the estimated EPA with a 10% probability of exceedance in 50 years is less than 0.25 g.
- The hospital owner requesting the exemption shall pay the actual costs of OSHPD and CDMG for the review and approval of the site-specific engineering geologic report.
- 3. Any SPC-1 building which is part of the functional contiguous grouping of a general acute care hospital may receive a five-year extension to the January 1, 2008 deadline for both structural and nonstructural requirements under the following conditions:
  - 1. The owner must apply for an extension with the Office no later than January 1, 2004;
  - 2. The owner must submit an amended compliance plan to the Office by July 1, 2004;
  - 3. The buildings must have met the NPC-2 nonstructural requirements by January 1, 2002;
  - 4. At least one building within the contiguous grouping shall have obtained a building permit prior to 1973 and shall have been evaluated and classified as SPC-1 in accordance with Section 1.3;

<u>Exception: Hospital buildings that were classified as SPC-1 under Section</u>
<u>2.0.1.2.3 must submit a structural evaluation report in accordance with Sections</u>
<u>1.3.2 and 1.3.3 by January 1, 2004.</u>

- 5. The basic service(s) from this building shall be:
  - Relocated to an SPC-3, 4, or 5/NPC-4 or 5 building by January 1, 2013.
     The building shall not be used for general acute care service after January 1,
    - 2013 unless it has been retrofit to an SPC-5/NPC 4 or 5 building; or
  - 2. <u>Continued in building if it is retrofitted to an SPC-5/NPC-4 or 5 building by January 1, 2013;</u>
- 6. Any other SPC-1 building in the contiguous grouping other than the building identified in subsection 1.5.2.3.4 must be retrofitted to at least an SPC-2/NPC-3 by January 1, 2013 or no longer used for acute care hospital inpatient services.
- 4. A post 1973 building classified as SPC-3 or 4 may receive an extension to the January 1, 2008 deadline for both the structural and nonstructural requirements provided it will be closed to general acute care inpatient service by January 1, 2013. The basic services in this building shall be relocated to an SPC-5/NPC-4 or 5 building by January 1, 2013;
  - 1. Any SPC-1 building in a functional contiguous grouping must be retrofitted to at least an SPC-2/NPC-3 by January 1, 2013 or no longer used for acute care hospital inpatient services. The following conditions apply to these hospital buildings:
    - 1. The owner must apply for an extension with the Office no later than January 1, 2004;
    - 2. The owner must submit an amended compliance plan to the Office by July 1, 2004; and

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- 3. The buildings must have met the NPC-2 nonstructural requirements by January 1, 2002.
- 5. A single building containing all of the basic services may receive a five-year extension to the January 1, 2008 deadline for both structural and nonstructural requirements under the following conditions:
  - 1. The owner must apply for an extension with the Office no later than January 1, 2004;
  - 2. The owner must submit an amended compliance plan to the Office by July 1, 2004;
    - 3. The building shall have obtained a building permit prior to 1973 and shall have been evaluated and classified as SPC-1 in accordance with Section 1.3;

Exception: Hospital buildings that were classified as SPC-1 under Section 2.0.1.2.3 must submit a structural evaluation report in accordance with Sections 1.3.2 and 1.3.3 by January 1, 2004.

- 4. The basic services from this building shall be:
  - 1. Relocated to an SPC-3, 4 or 5/NPC-4 or 5 building by January 1, 2013.
    - 1. The building shall not be used for general acute care service after

      January 1, 2013 unless it has been retrofitted to an SPC-5/NPC-4 or 5

      building; or
  - 2. Continued in building if it is retrofitted to an SPC-5/NPC-4 or 5 building by January 1, 2013.

**SECTION 1.6 DISPUTE RESOLUTION/APPEALS PROCESS** - Dispute resolution and appeals shall be in conformance with Article 5, Chapter 7, Part 1 of Title 24.

#### SECTION 1.7 NOTIFICATION FROM OSHPD

- 1. The Office shall issue written notices of compliance to all hospital owners that have attained the minimum required SPC and NPC performance levels by January 1, 2008, <u>January 1, 2013</u> and January 1, 2030 respectively;
- 2. The Office shall issue written notices of violation to all hospital owners that are not in compliance with the minimum SPC and NPC performance levels by January 1, 2008, January 1, 2013 and January 1, 2030; and
- The Office shall notify the State Department of Health Services of the hospital owners which have received a written notice of violation for failure to comply with these regulations.

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## **ARTICLE 11**

# EVALUATION OF CRITICAL NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### 11.0 INTRODUCTION

This article covers nonstructural components and systems critical to patient care.

#### 11.01 NONSTRUCTURAL EVALUATION PROCEDURE

1. The nonstructural performance evaluation shall examine the respective critical nonstructural systems and elements for the planned NPC as specified in Table 11.1, "Nonstructural Performance Categories".

The nonstructural evaluation process shall include the following steps:

- 1. Site visit and data collection;
- 2. Identification of building SPC:
- 3. Identification of critical nonstructural systems for the planned NPC;
- 4. Identification of critical care services housed in the building:
- 5. Final evaluation for the critical nonstructural elements and systems for the planned NPC;
- 6. Preparation of evaluation report, and
- 7. Submittal of evaluation report to OSHPD.
- 2. A general acute care hospital facility may be exempted from a nonstructural evaluation upon submittal of a written statement by the hospital owner to OSHPD certifying the following conditions:
  - 1. The building is designated "NPC 1" in conformance with Table 11.1 "Nonstructural Performance Categories", or
  - 2. The building is designated "NPC 4" in conformance with Table 11.1 "Nonstructural Performance Categories" and provided:
    - a) The building was designed and constructed under a building permit issued by OSHPD;
    - b) All subsequent repairs, remodels, additions and alterations were performed under a permit issued by OSHPD, and
    - Fire sprinkler systems have been retrofitted in conformance with Table 11.1, "Nonstructural Performance Categories".
- 3. <u>If a hospital owner elects to obtain a higher NPC at a future date, additional nonstructural evaluations as specified in Section 11.01.1 will be required.</u>
- 4. If a hospital owner sells or leases the hospital to another party, a complete nonstructural evaluation and list of all nonstructural deficiencies to achieve NPC 5 shall be submitted to the Office prior to the completion of the sale or lease.

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#### 11.1 NONSTRUCTURAL PERFORMANCE CATEGORIES

Each building shall be assigned a Nonstructural Performance Category (NPC), based upon the degree of anchorage and bracing of selected nonstructural elements and systems. This includes architectural, mechanical, electrical, and hospital equipment in addition to associated conduit, ductwork, piping, and machinery. NPCs are defined in Table 11.1.

#### 11.1.1 Site Visit and Evaluation

The evaluator shall:

- 1. Visit the building to observe and record the type, nature, and physical condition of the nonstructural elements and systems for the planned NPC;
- 2. Note the SPC of the buildings based on procedures followed in Article 2;
- 3. Assemble building design data including:
  - a. Construction drawings, specifications and calculations, and
  - b. All drawings, specifications and calculations for remodeling work.
- 4. During the visit, the evaluator shall:
  - a. Verify existing data;
  - b. Develop other needed data (e.g., measure and sketch building if necessary);
  - c. Verify the critical nonstructural systems of the planned NPC;
  - d. Verify the critical care areas/services, and
  - e. Identify special conditions which may impact the nonstructural systems or endanger the function of the critical care areas/services.

If drawings are not available, the site visit and evaluation shall be performed as described in this section.

- 5. Review other data available such as assessments of building performance and function following past earthquakes;
- 6. Prepare a summary of data using an OSHPD approved format;
- 7. Perform the evaluation using the procedures in Section 11.2.
- 8. Prepare a report of the findings of the evaluation using an OSHPD approved format.

#### 11.2 EVALUATION OF BUILDINGS

Conforming and nonconforming buildings shall be placed in an NPC based upon the degree of anchorage and bracing for those systems and equipment specified in Table 11.1. The scope of the nonstructural evaluation may be limited to the nonstructural systems and elements specified in Table 11.1 for the planned NPC. Buildings which do not meet the requirements for NPC 2 as defined in Table 11.1 shall be placed in NPC 1.

#### 11.2.1. Evaluation Procedures for NPC 2

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The following steps shall determine if the building meets the criteria for NPC 2:

#### 11.2.1.1 Scope of the Evaluation

The anchorage and bracing of components and equipment for the following systems shall be evaluated for conformance with Part 2, Title 24:

- a) Communications systems:
- b) Emergency power supply;
- c) Bulk medical gas systems;
- d) Fire alarm systems, and
- e) Emergency lighting equipment and signs in the means of egress.

#### 11.2.1.2 Evaluation Procedure

- a) Identify the specific nonstructural components and equipment that are subject to the requirements of NPC 2 as specified in Table 11.1;
- b) Conduct an inventory of components and equipment listed in 11.2.1.1, noting whether the items are anchored or braced:
- c) Determine if the anchorage or bracing of any the identified components and equipment identified in Section 11.2.1.2(a) complies with the following conditions:
  - Installed under a permit issued by OSHPD. Drawings showing the installation and bearing an OSHPD approval stamp are required to show that the installation conforms to Part 2, Title 24; or,
  - 2. Reviewed and approved by the Department of General Services, Office of Architecture and Construction, Structural Safety Section. Drawings showing: a) the installation; b) bear an Office of Architecture and Construction, Structural Safety Section approval stamp; and c) a five digit project number on the approval that begins with the "H" prefix, are required to demonstrate that the installation conforms to Part 2, Title 24. It shall also be demonstrated by a written report submitted by the structural engineer, acceptable to the enforcement agency, that an investigation of the anchorage and bracing of components and equipment identified in Section 11.2.1.2(a) shows it to be constructed in reasonable conformity with these drawings.

Anchorage and bracing of elements that comply with the either of these conditions of 11.2.1.2(c)1 or 11.2.1.2(c)2 are considered to meet the requirements of NPC 2;

Installation is defined as that which shows the size and type of material for all components of the system, including the anchor or fastener manufacturer (if proprietary), type, total number and embedment if connected to structural concrete, masonry or wood.

d) If the components and equipment inventoried in 11.2.1.2(b) is anchored or braced, but do not meet the requirements of Section 11.2.1.2(c), determine if the bracing and anchorage is sufficient to meet the code requirements specified in Table 11.1. The bracing capacity shall be determined by calculations based upon information shown in the construction documents. If

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these documents are incomplete or unavailable, the evaluation shall be based on the as-built conditions, with the capacity of fasteners to masonry, concrete, or wood determined by approved tests, and

e) If any of the items inventoried in 11.2.1.2(b) are unanchored or inadequately braced as determined by Section 11.2.1.2(d), the building shall be placed in NPC 1.

#### 11.2.2 Evaluation Procedures for NPC 3

The following steps shall determine if the building meets the criteria for NPC 3:

#### 11.2.2.1 Scope of the Evaluation

The nonstructural components and equipment to be evaluated are specified in Table 11.1.

#### 11.2.2.2 Evaluation Procedure

- a) To be eligible for evaluation for NPC 3, the building must meet the criteria for NPC 2;
- <u>ab</u>) Identify <u>the specific nonstructural</u> components and equipment that are subject to the requirements of <u>NPC 2 and NPC 3</u>;
- <u>be</u>) Conduct an inventory of components and equipment specified in Table 11.1, <u>NPC 2 and NPC 3</u>, noting whether the components and equipment are anchored or braced; *Exception:* Any general acute care hospital facility located in both a "rural area" as defined in Section 70059.1, Division 5, Title 22 and Seismic Zone 3 shall comply with the fire sprinkler system anchorage and bracing requirements of NFPA 13, 1994 edition or subsequent standard by January 1, 2013.
- <u>cd</u>) Determine if the anchorage or bracing of <u>any the identified</u> components and equipment <u>identified in Section 11.2.1.2(a)</u> complies with the following:
  - 1. Installed under a permit issued by OSHPD. Drawings showing the installation and bearing an OSHPD approval stamp are required to show that the installation conforms to Part 2, Title 24; or,
  - 2. Reviewed and approved by the Department of General Services, Office of Architecture and Construction, Structural Safety Section. Drawings showing: a) the installation; b) bear an Office of Architecture and Construction, Structural Safety Section approval stamp; and c) a five digit project number on the approval stamp that begins with an "H" prefix, are required to demonstrate that the installation conforms to Part 2, Title 24. It shall also be demonstrated by a written report submitted by the structural engineer, acceptable to the enforcement agency, that an investigation of the anchorage and bracing of components and equipment identified in Section 11.2.2.2(ab) shows it to be constructed in reasonable conformity with these drawings.

Anchorage and bracing of elements that comply with <u>either of these</u> the conditions of 11.2.1.2(d)1 or 11.2.1.2(d)2 are considered to meet the requirements of NPC 3;

Installation is defined as that which shows the size and type of material for all components of the system including the anchor or fastener manufacturer (if proprietary), type, total number and embedment if connected to structural concrete, masonry or wood.

<u>de</u>) If the components and equipment inventoried in 11.2.2.2(eb) is anchored or braced, but do not meet the requirements of Section 11.2.2.2(ec), determine if the bracing and anchorage is sufficient to meet the code requirements specified in Table 11.1. The bracing capacity shall be determined by calculations based upon information shown in the construction documents. If these documents are incomplete or unavailable, the evaluation shall be based on the as-built

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- conditions, with the capacity of fasteners to masonry, concrete, or wood determined by approved tests, and
- ef) If any of the items inventoried in 11.2.2.2(be) is inadequately anchored or braced as determined by Section 11.2.2.2(de), the building shall be placed in NPC 2.

#### 11.2.3 PROCEDURES FOR Evaluation Procedures for NPC 4

The following steps shall be followed to determine if the building meets the criteria for NPC 4:

#### 11.2.3.1 Scope of the Evaluation

The components and equipment to be evaluated are specified in Table 11.1.

#### 11.2.3.2 Evaluation Procedure

- To be eligible for evaluation for NPC 4, the building must meet the criteria for NPC 3;
- <u>a</u>b) Identify <u>the specific nonstructural</u> components and equipment that are subject to the requirements of NPC 2 through NPC 4;
- <u>be</u>) Conduct an inventory of components and equipment specified in Table 11.1, <u>NPC 2 through</u> NPC 4, noting whether the components and equipment are anchored or braced;
- <u>cd</u>) Determine if the anchorage or bracing of <u>any the identified</u> components and equipment <u>identified in Section 11.2.1.2(a)</u> complies with the following conditions:
  - Installed under a permit issued by OSHPD. Drawings showing the installation and bearing an OSHPD approval stamp are required to show that the installation conforms to Part 2, Title 24; or,
  - 2. Reviewed and approved by the Department of General Services, Office of Architecture and Construction, Structural Safety Section. Drawings showing: a) the installation; b) bear an Office of Architecture and Construction, Structural Safety Section approval stamp; and c) a five digit project number on the approval stamp that begins with an "H" prefix, are required to demonstrate that the installation conforms to Part 2, Title 24. It shall also be demonstrated by a written report submitted by the structural engineer, acceptable to the enforcement agency, that an investigation of the anchorage and bracing of components and equipment identified in Section 11.2.3-2(ab) shows it to be constructed in reasonable conformity with these drawings.

Anchorage and bracing of elements that comply with the either of these conditions of 11.2.1.2(d)1 or 11.2.1.2(d)2 are considered to meet the requirements of NPC 4;

Installation is defined as that which shows the size and type of material for all components of the system including the anchor or fastener manufacturer (if proprietary), type, total number and embedment if connected to structural concrete, masonry or wood.

- de) If the components and equipment inventoried in 11.2.3.2(be) are anchored or braced, but do not meet the requirements of Section 11.2.3.2(cd), determine if the bracing and anchorage is sufficient to meet the code requirements specified in Table 11.1. The bracing capacity shall be determined by calculations based upon information shown in the construction documents. If these documents are incomplete or unavailable, the evaluation shall be based on the as-built conditions, with the capacity of fasteners to masonry, concrete, or wood determined by approved tests, and
- ef) If any of the items inventoried in 11.2.3.2(be) is unanchored or inadequately braced as determined by Section 11.2.3.2(de), the building shall be placed in NPC 3.

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#### 11.2.4 PROCEDURES FOR Evaluation Procedures for NPC 5

The following steps shall determine if the building meets the criteria for NPC 5:

#### 11.2.4.1 Scope of the Evaluation

The components to be evaluated are specified in Table 11.1.

#### 11.2.4.2 Evaluation Procedure

- a) To be eligible for evaluation for NPC 5, the building must meet the criteria for NPC 4 and have provisions for onsite supplies of water and holding tanks for wastewater for 72 hours of acute care operation and onsite fuel supply for 72 hours of acute care and radiological service operation;
- <u>a</u>b) Identify <u>the specific nonstructural</u> components and equipment that are subject to the requirements of <u>NPC 2 through NPC 5</u>;
- <u>be</u>) Conduct an inventory of components and equipment specified in Table 11.1, <u>NPC 2 through</u> NPC 5, noting whether the components and equipment are anchored or braced;
- <u>cd</u>) Determine if the anchorage or bracing of <u>any the identified</u> components and equipment <u>identified in Section 11.2.1.2(a)</u> complies with the following conditions:
  - 1. Installed under a permit issued by OSHPD. Drawings showing the installation and bearing an OSHPD approval stamp are required to show that the installation conforms to Part 2, Title 24; or,
  - 2. Reviewed and approved by the Department of General Services, Office of Architecture and Construction, Structural Safety Section. Drawings showing: a) the installation; b) bear an Office of Architecture and Construction, Structural Safety Section approval stamp; and c) a five digit project number on the approval stamp that begins with an "H" prefix, are required to demonstrate that the installation conforms to Part 2, Title 24. It shall also be demonstrated by a written report submitted by the structural engineer, acceptable to the enforcement agency, that an investigation of the anchorage and bracing of components and equipment identified in Section 11.2.4.2(ab) shows it to be constructed in reasonable conformity with these drawings.

Anchorage and bracing of elements that comply with the either of these conditions of 11.2.1.2(d)1 or 11.2.1.2(d)2 are considered to meet the requirements of NPC 5;

Installation is defined as that which shows the size and type of material for all components of the system including the anchor or fastener manufacturer (if proprietary), type, total number and embedment if connected to structural concrete, masonry or wood.

- <u>de</u>) If the components and equipment inventoried in 11.2.4.2(<u>be</u>) are anchored or braced, but do not meet the requirements of Section 11.2.4.2(<u>ce</u>), determine if the bracing and anchorage is sufficient to meet the code requirements specified in Table 11.1. The bracing capacity shall be determined by calculations based upon information shown in the construction documents. If these documents are incomplete or unavailable, the evaluation shall be based on the as-built conditions, with the capacity of fasteners to masonry, concrete, or wood determined by approved tests, and
- ef) If any of the items inventoried in 11.2.4.2(be) is inadequately anchored or braced as determined by 11.2.4.2(de), the building shall be placed in NPC 4.

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# 11.3 TESTING REQUIREMENTS FOR EVALUATING THE PERFORMANCE OF EXISTING MECHANICAL FASTENERS

A testing program shall be instituted to determine the capacity of mechanical fasteners used to anchor non-structural components including the bracing of pipes, ducts, and conduit, and the attachment of equipment and other components listed in the 1995 CBC, Part 2, Title 24, Table 16A-O. Anchors shall be categorized as either seismic bracing of pipes ducts or conduit or equipment and other component anchors.

#### 11.3.1 Anchors Used in the Seismic Bracing of Pipes, Ducts, or Conduit

For anchors used in the seismic bracing of pipes, ducts, or conduit, the following shall apply:

1. 20% of the anchors (20 minimum) of a given size and type (wedge, shell and sleeve for expansion bolts), at each level of the structure shall be tension tested to 3 times the maximum calculated design load specified in Section 1630B but not less than 500 pounds. A minimum of one anchor in any 4-bolt group shall be tested assuming an equal distribution of the calculated force to the bolt group. One-quarter (1/4) inch diameter anchors need not be tested. Where none of the anchors in the group have calculated tension, testing shall consist of torque testing.

**Exception:** Internally threaded anchors, such as shell type anchors, shall be tested to 4 times the maximum calculated design loads. Attachment hardware shall be shimmed or removed prior to testing so that it does not prevent the possible withdrawal of the anchor.

2. If an anchor fails the tension test, 20 anchors, installed by the same trade, in the immediate vicinity of the failed anchor shall be tested prior to resuming to a 20% sampling rate for testing.

#### 11.3.2 Anchors used in the attachment of equipment and other components

For anchors used in the attachment of equipment and other components listed in the 1995 CBC, Part 2, Title 24, Table 16A-O, The following shall apply:

- 1. A minimum of one anchor of a given size shall be tension tested for each piece of equipment or other component under consideration. Where the number of anchors for the piece of equipment or component exceeds four, a minimum of 20% of the anchors shall be tension tested. Where none of the anchors in the group have calculated tension, testing shall consist of torque testing.
- 2. The tension test load shall be 3 times the maximum tension force calculated for an anchor in the attachment group using the design loads specified in Section 1630B or 500 pounds minimum. One-quarter (1/4) inch diameter anchors need not be tested.

**Exception:** Internally threaded anchors, such as shell type anchors, shall be tested to 4 times the maximum calculated design loads. Attachment hardware shall be shimmed or removed prior to testing so that it does not prevent the possible withdrawal of the anchor.

3. If a single anchor fails, all anchors in the attachment group shall be tested. If two (2) or more anchors fail, the component shall be retrofitted for the forces as for new construction.

#### 11.3.3 Tension Testing Procedure

1. Testing of anchors shall be accomplished by the application of externally applied direct tension force to the anchor. The testing apparatus shall not restrict the probable shear cone failure surface of the concrete or masonry.

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- 2. Torque testing is not permitted in lieu of tension testing unless specifically allowed in these provisions.
- 3. A failure is defined when the tension load on the anchor produces a slip of 1/8 inch, a shear cone failure in the concrete or masonry, concrete splitting, or fracture of the steel anchor itself prior to attaining the test load value.

**Exception:** For internally threaded anchors the allowable slip shall not exceed 1/16 inch.

- **11.3.4 Alternate test criteria.** In lieu of testing in accordance with Sections 11.3.1 or 11.3.2, a test load may be established by the evaluating engineer. The allowable load that the anchor can resist shall be determined by dividing the test load by the appropriate factors noted in Sections 11.3.1 or 11.3.2. No one-third increase is permitted for seismic or wind loads.
- **11.3.5 Allowable shear loads.** Allowable shear loads on anchors shall be determined by either of the following:
  - 1. Shear values listed in Table 19B-E, or;
  - 2. Shear values shall be obtained by analysis using **Strength Design of Anchorage to Concrete,** Section A.6 published by the Portland Cement Association, 1999, with the specified reduction coefficient(s) to convert the "strength" values to allowable stress design values of 1.7.

## **Table 11.1**

#### **Nonstructural Performance Categories**

Timeframes	Nonstructural Performance Category	Description
	NPC 1	Buildings with equipment and systems not meeting the bracing and anchorage requirements of any other NPC.
January 1, 2002	NPC 2	# communications systems; # emergency power supply; # bulk medical gas systems; # fire alarm systems; and # emergency lighting equipment and signs in the means of egress.
January 1, 2008	NPC 3	The building meets the criteria for NPC 2 and in Critical Care Areas, clinical laboratory service spaces, pharmaceutical service spaces, radiological service spaces, and central and sterile supply areas, the following components meet the bracing and anchorage requirements of Part 2, Title 24¹:  # Nonstructural components, listed in the 1995 CBC, Part 2, Title 24, Table 16A-O, Part 2; and  # Equipment, as listed in the 1995 CBC, Part 2, Title 24, Table 16A-O, "equipment" including equipment in the physical plant that service these areas.  Exceptions:  1. Seismic restraints need not be provided for cable trays, conduit and HVAC ducting. Seismic restraints may be omitted from piping systems, provided that an approved method of preventing release of the contents of the piping system in the event of a break is provided.  2. Only elevator(s) selected to provide service to patient, surgical, obstetrical, and ground floors during interruption of normal power need meet the structural requirements of Part 2, Title 24¹.  #Fire sprinkler systems comply with the bracing and anchorage requirements of NFPA 13, 1994 edition or subsequent applicable standards.

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		Exception: Acute care hospital facilities in both a rural area as defined by Section 70059.1, Division 5 of Title 22 and Seismic Zone 3 shall comply with the bracing and anchorage requirements of NFPA 13, 1994 edition or subsequent applicable standards by January 1, 2013.
	NPC 4	The building meets the criteria for NPC 3 and all architectural, mechanical, electrical systems, components and equipment, and hospital equipment meet the bracing and anchorage requirements of Part 2, Title 24 <sup>1</sup> . This category is for classification purposes of the Office of Emergency Services.
January 1, 2030	NPC 5	The building meets the criteria for NPC 4 and on-site supplies of water and holding tanks for wastewater, sufficient for 72 hours emergency operations, are integrated in to the building plumbing systems. As an alternative, hook-ups to allow for the use of transportable sources of water and sanitary waste water disposal have been provided. An on-site emergency system as defined within Part 3, Title 24 is incorporated into the building electrical system for critical care areas. Additionally, the system shall provide for radiological service and an onsite fuel supply for 72 hours of acute care operation.

<sup>&</sup>lt;sup>1</sup> For the purposes of Article 11, all enumerated items within Table 11.1 shall meet the requirements of Section 1630B by the specified timeframe as indicated by their respective NPC.

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## 7-113. Application for Plan, or Report or Seismic Compliance Extension Review

- (a) Except as otherwise provided in this part, before commencing construction of any health facility, the governing board or authority thereof shall submit an application to the Office for plan review, and shall have obtained the written approval thereof by the Office describing the scope of work included and any special conditions under which approval is given. The application shall contain a definite identifying name for the health facility, the name of the architect or engineer in general responsible charge of the work, the names of the architects or registered engineers who have been delegated responsibility for portions of the work, the estimated cost of the project and all such information required for completion of the application. Refer to Section 7-131 regarding incremental design, bidding and construction.
  - Application for seismic compliance extension requires submission of OSHPD Application Form #OSH-FD-384, "Application for 2008 Extension/ Delay in Compliance".
    - A. The submittal must comply with the applicable requirements of Chapter 6, Article 1, Section 1.5.2 "Delay in Compliance".
- (b) Submission of documents to the Office may be in three consecutive stages:
  - 1. One application for plan review and when applicable, four copies of the site data must be attached.
  - 2. One copy of reports or preliminary plans and outline specifications.
    - A. Two copies of preliminary plans and outline specifications must be submitted if additions, structural alterations or new buildings are included.
  - 3. One copy of final plans and specifications or reports.
    - A. Two copies must be submitted if additions, structural alterations or new buildings are included.
- (c) For every project there shall be an architect or structural engineer in general responsible charge of the preparation of reports or plans and specifications except as set forth in Section 7-115 and Sections 129875 of the Health and Safety Code.
  - A project may be divided into parts, provided that each part is clearly defined by a building or similar distinct unit. The part, so defined, shall include all portions and utility systems or facilities necessary to the complete functioning of that part. Separate assignments of general responsible charge may be made for the parts.
- (d) The architect or structural engineer in general responsible charge may delegate responsibility for any portion of the work to, or may employ or retain other architects or registered engineers. No delegation to, or employment or retention of, others shall be construed as relieving the architect or structural

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engineer in general responsible charge of his rights, duties, and responsibilities under Section 129805 of the Health and Safety Code.

(e) The assumption of general responsible charge or of delegated responsibility for portions of the work shall be clearly designated, accepted and approved by the parties concerned (including the governing board or authority of the hospital). The application for approval of reports or plans and specifications provides for the common conditions of delegation of responsibility, but for unusual cases, or for changes in responsibility taking place after the plans have been submitted for approval, the delegation of responsibility, acceptances and approvals thereof shall be submitted in letter form which if prepared by the architect or structural engineer in general responsible charge, shall include an indication that the owner or governing board has been notified.

Authority: Health and Safety Code, Sections 127015 and 129850 Reference: Health and Safety Code, Sections 129675-129998

### 7-133. Fees

- (a) The fee for plan review and field observation shall be based on the estimated cost of construction as follows:
  - 1. The fee for hospital buildings is 1.64 percent of the estimated construction cost.
    - A. The Office shall charge actual costs for review and approval of seismic evaluations and compliance plans prepared pursuant to Article 8, Chapter 1, Part 7, Division 107, (commencing with Section 130000) of the Health and Safety Code. Total cost paid for these review services shall be nonrefundable and shall be deducted from the fee for a future project involving seismic retrofit or new construction pursuant to the hospital building compliance plan approved by the Office.
  - 2. The fee for skilled nursing and intermediate care facilities, as defined in Subdivision (c), (d), (e) or (g) of Section 1250, Health and Safety Code, is 1.5 percent of the estimated construction cost;
  - 3. The minimum filing fee shall be \$250.00.
- (b) The fee for submitting an amended seismic evaluation report or compliance plan is \$250. The fee for review and approval of the amended report or compliance plan shall be subject to Section 7-133 (a)1A. above.
- (c) The fee for submitting an application for extension to seismic compliance is \$250.

Authority: Health and Safety Code, Sections 127015, 129785 and 129850; and

Government Code, Section 11152

Reference: Health and Safety Code, Section 129785

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# EXPRESS TERMS TITLE 24, CALIFORNIA BUILDING STANDARDS CODE PART 2, CHAPTER 10 SECTION 1003.1.1

#### **SECTION 1003 – GENERAL**

**1003.1 Means of Egress.** All portions of the means of egress shall comply with the applicable requirements of Section 1003.

1003.1.1 [for OSHPD] Means of Egress for Hospitals, Skilled Nursing Facilities and Intermediate Care Facilities. In addition to meeting the requirements of this chapter, means of egress for acute care hospitals, skilled nursing facilities and intermediate care facilities shall comply with the requirements of Section 1003.1.1.1.

**Exception:** The authority having jurisdiction may exempt minor additions, minor alterations and minor remodel projects from these requirements.

## 1003.1.1.1 Means of Egress for Hospital Buildings.

- 1. Means of egress for new hospital buildings and additions to existing conforming hospital buildings shall only pass through buildings that comply with the requirements of SPC-3 or higher and NPC-4 or higher.
- 2. Means of egress for additions to existing SPC-2 hospital buildings shall only pass through hospital buildings that have OSHPD-approved performance categories of SPC-2 or higher and NPC-4 or higher.

Exception: The means of egress may pass through hospital buildings that have OSHPD-approved performance categories of SPC-2 or higher and NPC-2 or higher, provided the nonstructural components in the path of egress are braced in accordance with the requirements of CBC Section 1632A.

3. Means of egress for remodels of existing SPC-3 or higher hospital buildings shall only pass through hospital buildings that have OSHPD-approved performance categories of SPC-2 or higher and NPC-4 or higher.

Exception: The means of egress may pass through hospital buildings that have OSHPD-approved performance categories of SPC-2 or higher and NPC-2 or higher, provided the nonstructural components in the path of egress are braced in accordance with the requirements of CBC Section 1632A.

- 4. Means of egress for remodels of existing SPC-1 and SPC-2 hospital buildings shall only pass through hospital buildings that have OSHPD-approved performance categories of SPC-1 or higher and NPC-2 or higher.
- 5. Hospital buildings that would not otherwise require evaluation for an SPC rating, which are used as a part of the means of egress for acute care hospitals, shall be evaluated in accordance with the requirements of Section 1.3, Chapter 6, Part 1, CCR to determine the appropriate rating, or shall meet the structural requirements of these regulations for new hospital buildings. The means of egress serving the new building, addition, alteration or remodel shall conform to the requirements of CBC Section 1632A

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and shall be deemed by OSHPD to be free of adverse seismic interactions caused by potential failure of overhead or adjacent components.

- 6. The means of egress for acute care hospitals may pass through buildings that are removed from hospital service only if the buildings remain under the jurisdiction of OSHPD, and only until January 1, 2030, subject to the following:
  - a. Egress for conforming hospital buildings may pass through buildings that have been removed from acute care hospital service that comply with the requirements of section 1003.1.1.1, item #1 or 3.
  - b. Egress for non conforming hospital buildings may pass through buildings that have been removed from acute care hospital service that comply with the requirements of section 1003.1.1.1, item #2 or 4.

After January 1, 2030, the means of egress for acute care hospital buildings shall only pass through hospital buildings that have OSHPD-approved performance categories of SPC 3 or higher and NPC 4 or higher.

# 1003.1.1.2 Means of Egress for Skilled Nursing Facilities and Intermediate Care Facilities.

- 1. Means of egress for new skilled nursing facilities or intermediate care facilities or additions to existing skilled nursing facilities or intermediate care facilities shall only pass through buildings that meet the structural requirements of the 1973 or later edition of the California Building Standards Code.
  - **Exception**: As an alternate to this section, skilled nursing and intermediate care facilities may meet the egress requirements in section 1003.1.1.1, items 1 through 5 for hospital buildings.
- 2. Means of egress for skilled nursing facilities and intermediate care facilities shall only pass through buildings that are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

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